## REMARKS

Claims 1, 2, 4-6, 8, 9, and 11-14 are amended to more clearly define the invention.

Support for the amendment is found in the existing claims and in the Application description in connection with Figures 1 and 2. Specifically support for the amended limitation "automatically storing said combined dose value in an electronic record associated with said patient in a repository concurrently accessible by a plurality of healthcare workers using remote devices" is found in page 7 lines 20-24, page 6 lines 27-29 and page 3 lines 11-16 and other places.

### *I. Rejection under 35 U.S.C. 102(b)*

Claims 1, 3, 7, 8 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,965,847 – Wessol et al. These claims, as amended, are deemed to be patentable for the reasons given below.

Amended claim 1 recites a "system for processing data concerning patient radiation treatment" comprising "an input processor for receiving data identifying a first radiation dose, received by a particular anatomical part of a patient, from a radiation source external to a patient and a second radiation dose, received by said particular anatomical part of said patient from a radiation source internal to said patient and implanted within said patient; a data processor for combining data representing said first and second dose to provide a combined therapeutic dose value representing a total cumulative radiation dose received by said particular anatomical part of said patient; and a storage processor for automatically storing said combined dose value in an electronic record associated with said patient in a repository concurrently accessible by a plurality of healthcare workers using remote devices". These features are not shown (or suggested) in Wessol.

The system of claim 1 includes a "data processor for combining data representing" a "first radiation dose" **actually** "**received** by a particular anatomical part of a patient, from a radiation source external to a patient" and a "second radiation dose" **actually** "**received** by said particular anatomical part of said patient from a radiation source internal to said patient and implanted within said patient" to "provide a combined therapeutic dose value representing a total cumulative radiation dose received by said particular anatomical part of said patient". Further, a "storage processor" "automatically" stores the "combined dose value in an electronic record associated with said patient in a repository concurrently accessible by a plurality of healthcare workers using remote devices". These features are NOT show or suggested in Wessol. The Wessol system is a dosimetry planning system (Wessol column 1 lines 22-25) and does not process "data representing" radiation doses actually "**received**" by a particular anatomical part of a patient at all. The Wessol system does not have the communication linkages or architecture necessary for acquiring and processing data representing" radiation doses actually "**received**".

The Wessol system does NOT show or suggest a "storage processor" that "automatically" stores a "combined dose value" comprising "external" and "internal" sourced radiation doses **actually** "**received** by a particular anatomical part of a patient" in "an electronic record associated with said patient in a repository concurrently accessible by a plurality of healthcare workers using remote devices". Wessol does not recognize any need for, or advantage in, such an arrangement. This is because Wessol describes a Dosimetry planning system that is concerned with **planning** and estimating a radiation dose and target area **prior** to dose administration (Wessol column 1 lines 22-32). Wessol does not show determining a combined radiation dose actually received by a patient or storing such a combined dose in a patient record "concurrently accessible by a plurality of healthcare workers using remote devices". In contrast the claimed arrangement addresses automatically providing a combined radiation dose value to an anatomical part in a patient record as **proof** that such a dose has been received and so that a physician can **rely** on it in planning further treatments. Further multiple different physicians can concurrently access accurate true radiation dosage information for a variety of treatment related activities including, safety determination for future radiation therapy, X-ray dose acceptability, determining a patient is not a radiation source hazard, documentation and report preparation, compliance with patient record maintenance regulations and a variety of other reasons.

The system "automatically" stores the "combined dose value in an electronic record associated with said patient in a repository concurrently accessible by a plurality of healthcare workers using remote devices" to facilitate patient treatment, clinical information administration and patient management. These features and advantages are nowhere shown, suggested or recognized in Wessol. Further, Wessol does not show or suggest "an input processor for receiving data identifying a first radiation **dose, received** by a particular anatomical part of a patient, from a radiation source **external** to a patient and a second radiation **dose, received** by said particular anatomical part of said patient from a radiation source **internal** to said patient and **implanted** within said patient. Wessol also fails to suggest these features in combination a data processor for combining data representing said first and second dose to provide a combined therapeutic dose value representing a total cumulative radiation dose **received** by said particular anatomical part of said patient".

In the Wessol system as described in connection with Figure 2 in column 7 line 51 to column 8 line 39, a **test** radiation source is introduced to a patient in concentrations "smaller than required" and the test radiation distribution is imaged and the actually imaged distribution is **computationally escalated** i.e. projected and simulated for purposes of dosimetry planning to improve dosimetry accuracy of an actual therapeutic dose (Column 8 lines 6-8, 15-16, 22-23, 32-33). Wessol describes computational escalation and simulation based on a **single small** test radiation dose and NOT determination of a "combined therapeutic dose value" comprising "external" and "internal" sourced radiation doses actually "received by a particular anatomical part of a patient". The test dose of Wessol is not a **therapeutic** dose at all and is a single dose that is "smaller than required to conformally irradiate the treatment volume" and is for gauging a distribution for escalation (column 8 line 8) and hence is not a **therapeutic** dose for **treatment** comprising a "combined dose value" including "external" and "internal" sourced radiation doses **actually "received** by a particular anatomical part of a patient". Consequently, withdrawal of the rejection of amended claim 1 under 35 USC 102(e) is respectfully requested.

Dependent claim 3 is considered to be patentable based on its dependence on claim 1. Claim 3 is also considered to be patentable because Wessol does not show (or suggest) "said radiation source internal to said patient comprises at least one of, (a) an implanted device, (b) an intra-vascular radiation treatment source, (d) a temporarily inserted radiation source, (e) a permanently inserted radiation source, (f) a diagnostic related radiation source and (g) a therapeutic radiation source". As previously explained, Wessol describes a Dosimetry planning system that is concerned with **planning** and estimating a radiation dose and target area **prior** to dose administration and does not show determining a combined radiation dose **actually received** by a patient from "at least one of, (a) an implanted device, (b) an intra-vascular radiation treatment source, (d) a temporarily inserted radiation source, (e) a permanently inserted radiation source, (f) a diagnostic related radiation source and (g) a therapeutic radiation source" or storing such a combined dose in a patient record "concurrently accessible by a plurality of healthcare workers using remote devices".

Dependent claim 7 is considered to be patentable based on its dependence on claim 1 and for reasons given in connection with claim 1. Claim 7 is also considered to be patentable because Wessol does not show (or suggest) the feature combination in which "said record associated with said patient includes at least one of, (a) an identification of said particular anatomical part of said patient, (b) said first radiation dose, (c) said second radiation dose and (d) data identifying a radiation value emitted by a radiation source implanted within a patient". Wessol describes a Dosimetry planning system that does not show determining a combined radiation dose **actually received** by a patient or storing such a combined dose in a patient record including "at least one of, (a) an identification of said particular anatomical part of said patient, (b) said first radiation dose, (c) said second radiation dose and (d) data identifying a radiation value emitted by a radiation source implanted within a patient" and that is "concurrently accessible by a plurality of healthcare workers using remote devices".

Amended dependent claim 8 is considered to be patentable based on its dependence on claim 1 and for reasons given in connection with claim 1. Claim 8 is also considered to be patentable because Wessol does not show (or suggest) the feature combination including "a communication interface for initiating communication of an alert message to a user identifying said combined dose value associated with said patient". Wessol does not show or suggest a "communication interface for initiating communication of an **alert** message to a user identifying said combined dose value" actually received and "associated with said patient".

Dependent claim 11 is considered to be patentable based on its dependence on claim 1. Claim 11 is also considered to be patentable because Wessol does not show (or suggest) the feature combination including "an interface processor for using said combined dose value in configuring a radiation therapy device for delivering a radiation treatment to a patient". Contrary to the Rejection statement on page 3, Wessol in column 5 lines 40-51 relied on merely discusses computer type applications and functions and does not show or suggest "using said combined dose value" actually received "in **configuring a radiation therapy device** for delivering a radiation treatment to a patient".

Amended independent claim 12 recites a "system for processing data concerning patient radiation treatment" comprising "an input processor for receiving data identifying a first radiation dose, received by a particular anatomical part of a patient, from a radiation source external to a patient and a second radiation dose, received by said particular anatomical part of said patient from a radiation source internal to said patient and implanted within said patient; a data processor for combining data representing said first and second dose to provide a combined therapeutic dose value representing a total cumulative radiation dose received by said particular anatomical part of said patient; a storage processor for automatically storing said combined dose value in an electronic record associated with said patient in a repository concurrently accessible by a plurality of healthcare workers using remote devices; and a task manager for updating a record indicating a task to be performed by including an additional task in response to said combined dose value". Independent claim 12 is considered to be patentable for reasons given in connection with claim 1 and other reasons.

Dependent claim 13 is considered to be patentable based on its dependence on claim 12. Claim 13 is also considered to be patentable because Wessol does not show (or suggest) the feature combination in which "said input processor receives data identifying a radiation value emitted by a radiation source implanted within a patient and said task manager updates a record to indicate a perimeter is to be designated identifying an area around said patient to be avoided by other personnel, in response to said combined dose value". Wessol in steps 102, 104 and 106 of Figure 2 (column 7 line 51 to column 6 line 39) relied on nowhere shows or suggests use of a "task manager" that "updates a record to indicate a perimeter is to be designated identifying an **area** around said patient to be **avoided by other personnel**, in response to said **combined dose** value".

*II. Rejection under 35 U.S.C. 103(a)*

Claims 2, 4-6, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,965,847 – Wessol et al. in view of US Patent 6,099,457 Good and further in view of U.S. Patent Application No. 2004/0236207 – Widener et al. These claims are deemed to be patentable for the reasons given below.

Amended dependent claim 2 is considered to be patentable based on its dependence on claim 1. Claim 2 is also considered to be patentable because Wessol (with Good and Widener) does not show (or suggest) the feature combination in which "said data processor combines said data representing said first and second dose" comprising "external" and "internal" sourced radiation doses actually "received by a particular anatomical part of a patient" by "summing values representing said first and second dose to provide said combined dose value".

The Rejection recognizes on page 5 that Wessol does not show or suggest such features but erroneously states that such features are obvious in view of Good and Widener. Contrary to the Rejection statement Wessol with Good and Widener (individually or in combination) fails to show or suggest a system involving "**summing** values representing" "said first and second dose" comprising "external" and "internal" sourced radiation doses **actually** "**received** by a particular anatomical part of a patient" and "automatically" storing the "combined dose value" in "an electronic record associated with said patient in a repository concurrently accessible by a plurality of healthcare workers using remote devices". Wessol does not recognize any need for, or advantage in, such an arrangement. This is because Wessol describes a Dosimetry planning system that is concerned with **planning,** simulating and estimating a radiation dose and target area **prior** to dose administration (Wessol column 1 lines 22-32). Wessol does not show determining a combined radiation dose actually received by a patient or storing such a combined dose in a patient record "concurrently accessible by a plurality of healthcare workers using remote devices". Good is concerned with design and production of radioactive implants (Abstract). Widener is concerned with "the assessment or quantitative evaluation of the amount of radiation delivered to a patient receiving radiation during a therapeutic procedure". Specifically Widener is concerned with measurement of radiation dose received by a patient during **external** radiation therapy during such a procedure. None of the references individually or together show or suggest a system involving "**summing** values representing" "said first and second dose" comprising "external" and "internal" sourced radiation doses **actually** "**received** by a particular anatomical part of a patient" and "automatically" storing the "combined dose value" in "an electronic record associated with said patient in a repository concurrently accessible by a plurality of healthcare workers using remote devices".

Further combining the systems of Wessol with Good and Widener as suggested in the Rejection merely produces a system for Dosimetry planning using an external radiation measurement device per Widener and based on a radiation implant produced according to the system of Good. This combination nowhere suggests the claimed arrangement. Further there is an absence of problem recognition, reason or other motivation in any of the cited references for providing the claimed arrangement. Consequently withdrawal of the rejection of claim 2 under 35 USC 103(a) is respectfully requested.

Amended dependent claim 4 is considered to be patentable based on its dependence on claim 1 for reasons given in connection with claims 1 and 2. Claim 4 is also considered to be patentable because Wessol (with Good and Widener) does not show (or suggest) the feature combination "including a rules processor for initiating generation of an **alert** message for communication to a healthcare worker, in response to a combined dose value" "**summing** values representing" "said first and second dose" comprising "external" and "internal" sourced radiation doses **actually** "**received** by a particular anatomical part of a patient".

Amended dependent claim 5 is considered to be patentable based on its dependence on claim 1 for reasons given in connection with claims 1 and 2. Claim 5 is also considered to be patentable because Wessol (with Good and Widener) does not show (or suggest) the feature combination in which "said input processor receives data identifying a radiation value emitted by a radiation source implanted within a patient and said storage processor stores said emitted radiation value **and** said combined dose value" comprising "external" and "internal" sourced radiation doses **actually** "**received** by a particular anatomical part of a patient" in "said record associated with said patient" in a "repository concurrently accessible by a plurality of healthcare workers using remote devices".

Amended dependent claim 6 is considered to be patentable based on its dependence on claims 1 and 5 for reasons given in connection with claims 1, 2 and 5. Claim 6 is also considered to be patentable because Wessol (with Good and Widener) does not show (or suggest) the feature combination in which "said storage processor stores said emitted radiation value and said combined dose value in at least one of, (a) the same portion of said record and (b) a related record section of said record, to consolidate radiation related data in a particular patient record section".

Dependent claim 10 is considered to be patentable based on its dependence on claims 1 and 9 for reasons given in connection with claims 1, 2 and 9. Claim 10 is also considered to be patentable because Wessol (with Good and Widener) does not show (or suggest) the feature combination in which "said additional task is to be performed by at least one healthcare worker and comprises a prompt to a healthcare worker to perform an action".

Amended independent claim 14 is a method claim mirroring system claim 1 and is considered to be patentable for reasons given in connection with claim 1 and for reasons given in connection with claim 2.

Consequently withdrawal of the Rejection of claims 1-14 is respectfully requested.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Respectfully submitted,
Alexander Burke
Alexander J. Burke
Reg. No. 40,425

Date October 24, 2006

Siemens Corporation
Customer No. 28524

Tel 732 321 3023
Fax 732 321 3030